



# UNITED STATES PATENT AND TRADEMARK OFFICE

UNITED STATES DEPARTMENT OF COMMERCE  
United States Patent and Trademark Office  
Address: COMMISSIONER OF PATENTS AND TRADEMARKS  
P.O. Box 1450  
Alexandria, Virginia 22313-1450  
www.uspto.gov

| APPLICATION NO. | FILING DATE | FIRST NAMED INVENTOR | ATTORNEY DOCKET NO. | CONFIRMATION NO. |
|-----------------|-------------|----------------------|---------------------|------------------|
| 09/923,323      | 08/08/2001  | Jung-Wan Ko          | 1293.1059-CIPD2     | 3345             |

21171 7590 05/19/2003

STAAS & HALSEY LLP  
700 11TH STREET, NW  
SUITE 500  
WASHINGTON, DC 20001

EXAMINER

CHIEU, PO LIN

| ART UNIT | PAPER NUMBER |
|----------|--------------|
|----------|--------------|

2615

DATE MAILED: 05/19/2003

h

Please find below and/or attached an Office communication concerning this application or proceeding.

# Office Action Summary

Application No.

09/923,323

Applicant(s)

KO ET AL.

Examiner

Polin Chieu

Art Unit

2615

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

## Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

## Status

- 1) ☐ Responsive to communication(s) filed on \_\_\_\_.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

## Disposition of Claims

- 4) ☒ Claim(s) 1-28 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-28 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_ are subject to restriction and/or election requirement.

## Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.
- If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

## Priority under 35 U.S.C. §§ 119 and 120

- 13) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some \* c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).
- \* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).
- a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

## Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☒ Information Disclosure Statement(s) (PTO-1449) Paper No(s) 3.
- 4) ☐ Interview Summary (PTO-413) Paper No(s). \_\_\_\_.
- 5) ☐ Notice of Informal Patent Application (PTO-152)
- 6) ☐ Other: .

## DETAILED ACTION

### *Specification*

1. The title of the invention is not descriptive. A new title is required that is clearly indicative of the invention to which the claims are directed.

### *Double Patenting*

2. The nonstatutory double patenting rejection is based on a judicially created doctrine grounded in public policy (a policy reflected in the statute) so as to prevent the unjustified or improper timewise extension of the "right to exclude" granted by a patent and to prevent possible harassment by multiple assignees. See *In re Goodman*, 11 F.3d 1046, 29 USPQ2d 2010 (Fed. Cir. 1993); *In re Longi*, 759 F.2d 887, 225 USPQ 645 (Fed. Cir. 1985); *In re Van Ornum*, 686 F.2d 937, 214 USPQ 761 (CCPA 1982); *In re Vogel*, 422 F.2d 438, 164 USPQ 619 (CCPA 1970); and, *In re Thorington*, 418 F.2d 528, 163 USPQ 644 (CCPA 1969).

A timely filed terminal disclaimer in compliance with 37 CFR 1.321(c) may be used to overcome an actual or provisional rejection based on a nonstatutory double patenting ground provided the conflicting application or patent is shown to be commonly owned with this application. See 37 CFR 1.130(b).

Effective January 1, 1994, a registered attorney or agent of record may sign a terminal disclaimer. A terminal disclaimer signed by the assignee must fully comply with 37 CFR 3.73(b).

Claims 1-23 and 25-28 are provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-3, 5-17, and 20-30 of copending Application No. 09/923361 in view of Moriyama et al (5,889,746). Regarding claims 1-3, claim 1 of the copending application discloses a decoding unit; a storage device; and a controller. Claims 2-3 of the copending application disclose the limitations of claims 2-3. However, the copending application does not disclose common catalog data and title catalog data, wherein common catalog

Art Unit: 2615

data has information applying to the all audio data, and title catalog data has information applying to distinct items of the audio data.

Moriyama et al teaches common catalog data (e.g. album title or artist) and title catalog data (e.g. song title fig. 12).

It would have been highly desirable to have common catalog data and title catalog data to facilitate searching using the catalog data (fig. 20).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to have common catalog data and title catalog data in the device of the copending application.

Regarding claim 4, claim 5 of the copending application discloses common catalog information and title catalog information, and claim 4 of the copending application discloses a storing unit; a video decoder; an audio decoder; and a controller.

Regarding claims 5-10, claims 6-11 of the copending application disclose the limitations of claims 5-10.

Regarding claim 11, claim 14 of the copending application discloses common catalog information and title catalog information; and claim 12 of the copending application discloses an optical pickup and a decoding unit.

The limitations of claims 12-13 are discloses in claims 13 and 15 of the copending application.

Regarding claims 14-15, claim 16 of the copending application discloses an optical pickup and a processor; claim 17 of the copending application discloses the limitations of claim 15. However, the copending application does not disclose common

catalog data and title catalog data. As discussed previously, Moriyama et al discloses common catalog data and title catalog data. Please refer to the obviousness type double patenting rejection of claim 1.

Regarding claims 16-17, claim 22 of the copending application discloses common catalog data and title catalog data; and claim 20 of the copending application discloses an encoding unit and an optical pickup. The limitations of claim 17 are disclosed in claim 21 of the copending application.

The limitations of claims 18-23 are disclosed in claims 23-28 of the copending application.

The limitations of claims 25-28 are disclosed in claims 26-27 and 29-30 of the copending application.

This is a provisional obviousness-type double patenting rejection.

3. Claim 24 is provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 22 of copending Application No. 09/923361 in view of Moriyama et al, Tashiro et al, and Heo.

Regarding claim 24, please refer to the rejection of claim 21 for the discussion of the storage of catalog information in locations of image information. Moriyama et al discloses catalog playback information comprising locations of the common catalog data and title catalog data (text pointer, fig. 9); and since the catalog information is stored in video title sets, as discussed previously, the locations are of image information. Moriyama et al discloses a file identifier (fig. 9), and an information table in which is stored the locations of one item of the common catalog data and the

title catalog data (fig. 9). However, Moriyama et al does not disclose an auto presentation information table.

Tashiro et al teaches playing back catalog information related to audio data with the audio data (fig. 15). Therefore, it would have been obvious to have file identifiers indicating the corresponding audio data for the common catalog data and title catalog data; and an information table indicated the catalog data to be played back with the corresponding audio data in order to perform the displaying of catalog information related to the audio data. For example, figure 12 (Moriyama et al) shows catalog information indicating a collection title (SEIKO MATSUDA COLLECTION), artist (SEIKO MATSUDA), and song titles (SUPREME, GRASS WITH FIREFLY, and STRAWBERRY TIME). Items of catalog data do not apply to every audio title set (or song), like song titles. Clearly the song titles "STRAWBERRY TIME" should not be displayed if that is not the song being played back, thereby making it obvious to have file identifiers indicating the correspondence between the audio data and catalog data, and a table for the catalog information corresponding to audio data that is to be played back with the audio data.

It would have been highly desirable to have an auto presentation information table so that catalog information corresponding to distinct items of audio data are displayed when the audio data is reproduced or song titles are displayed when the song is being reproduced.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to have an audio presentation information table in the device of Moriyama et al.

This is a provisional obviousness-type double patenting rejection.

4. Claims 1-23, and 25-28 provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claims 1-12 and 16-26 of copending Application No. 09/924094 in view of Moriyama. Regarding claim 1, claim 1 of the copending application discloses a decoding unit; a storage device; and a controller. As discussed previously, Moriyama et al discloses common catalog data and title catalog data so that searching according to catalog data can be done. Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to have common catalog data and title catalog data in the device of the copending application.

The limitations of claims 2-3 are discloses in claims 2-3 of the copending application.

Regarding claim 4, claim 4 of the copending application discloses a storing unit; a video decoder; an audio decoder; and a controller. As discussed previously Moriyama et al discloses common catalog data and title catalog data.

The limitations of claims 5-6 and 8-10 are discloses in claims 5-9 of the copending application.

Regarding claim 7, claim 4 of the copending application discloses a storing unit storing the catalog information and additional information. If the storing unit is able to

store the catalog information then it is inherent that the sum of a data size of the common catalog information and data of one title catalog is less than a capacity of the storing unit since the catalog information consist of both the common catalog data and title catalog data. Otherwise, the storing unit could not store the catalog information.

Regarding claim 11, claim 10 of the copending application discloses an optical pickup and a decoding unit. As discussed previously Moriyama et al discloses common catalog data and title catalog data.

The limitations of claim 12 are discloses in claim 11 of the copending application.

Regarding claim 13, claim 4 of the copending application discloses a controller playing back catalog information corresponding to a selection of a user. Claim 9 of the copending application discloses reading catalog playback information.

Regarding claim 14, claim 12 of the copending application discloses an optical pickup and a processor. As discussed previously Moriyama et al discloses common catalog data and title catalog data.

The limitations of claim 15 are discloses in claim 13 of the copending application.

Regarding claim 16, claim 18 of the copending application discloses common catalog data and title catalog data; and claim 16 of the copending application disclose an encoding unit and an optical pickup.

The limitations of claims 17-23 are discloses in claims 17 and 19-24 of the copending application.

The limitations of claims 25-28 are discloses in claims 22-23 and 25-26 of the copending application.



This is a provisional obviousness-type double patenting rejection.

5. Claim 24 is provisionally rejected under the judicially created doctrine of obviousness-type double patenting as being unpatentable over claim 22 of copending Application No. 09/924094 in view of Moriyama et al, Tashiro et al, and Heo.

Regarding claim 24, please refer to the are rejection of claim 21 for the discussion of the storage of catalog information in locations of image information. Moriyama et al discloses catalog playback information comprising locations of the common catalog data and title catalog data (text pointer, fig. 9); and since the catalog information is stored in video title sets, as discussed previously, the locations are of image information. Moriyama et al discloses a file identifier (fig. 9), and an information table in which is stored the locations of one item of the common catalog data and the title catalog data (fig. 9). However, Moriyama et al does not disclose an auto presentation information table.

Tashiro et al teaches playing back catalog information related to audio data with the audio data (fig. 15). Therefore, it would have been obvious to have file identifiers indicating the corresponding audio data for the common catalog data and title catalog data; and an information table indicated the catalog data to be played back with the corresponding audio data in order to perform the displaying of catalog information related to the audio data. For example, figure 12 (Moriyama et al) shows catalog information indicating a collection title (SEIKO MATSUDA COLLECTION), artist (SEIKO MATSUDA), and song titles (SUPREME, GRASS WITH FIREFLY, and STRAWBERRY TIME). Items of catalog data do not apply to every audio title set (or song), like song

titles. Clearly the song titles "STRAWBERRY TIME" should not be displayed if that is not the song being played back, thereby making it obvious to have file identifiers indicating the correspondence between the audio data and catalog data, and a table for the catalog information corresponding to audio data that is to be played back with the audio data.

It would have been highly desirable to have an auto presentation information table so that catalog information corresponding to distinct items of audio data are displayed when the audio data is reproduced or song titles are displayed when the song is being reproduced.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to have an audio presentation information table in the device of Moriyama et al.

This is a provisional obviousness-type double patenting rejection.

### ***Claim Rejections - 35 USC § 102***

6. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

7. Claims 1-3, 11-17, 19-20, and 27-28 are rejected under 35 U.S.C. 102(e) as being anticipated by Moriyama et al (5,889,746).

Regarding claims 1 and 11, Moriyama et al discloses a playback apparatus (fig. 19) to perform a playback operation of encoded audio data (93) and encoded catalog information (fig. 9) related to the audio data, wherein the encoded audio data encoded catalog information and the encoded catalog playback information are stored on a storage medium (col. 14, lines 58-67) in figure 2, and the catalog information comprises common catalog data (artist or album name) for information commonly applied for the entire audio data recorded on the storage medium, and title catalog data (song name) having information corresponding to distinct item of the audio data (fig. 12); an optical pickup (80, fig. 19) which reads the encoded audio data (43, fig. 1), the common catalog data and the title catalog data (125, fig. 9); a decoding unit which decodes the encoded audio data (93, fig. 19), the encoded common catalog data and the title catalog data (85) read from the storage medium (col. 22, lines 42-57); a storage device to store the common catalog data and title catalog data of the audio data which is to be played back (1, fig. 19); and a controller to control the decoding unit and the storage device (100), so as to simultaneously decode the audio data (col. 23, lines 44-63) to be played back and the common catalog data and the title catalog data (col. 22, lines 42-57) corresponding to the audio data to be played back.

Regarding claim 2, Moriyama et al discloses that the controller stores the common catalog data and the title catalog data of the audio data which is to be played back prior to playing back the audio (col. 22, lines 42-57).

Regarding claim 3, Moriyama et al discloses catalog playback information is stored on the storage medium, and the controller (100) distinguishes whether the catalog playback information exists in the storage medium by defining a region of the storage medium predetermined by a physical or logical address designated as a space for storing the catalog playback information (2, fig. 1).

Regarding claim 12, Moriyama et al discloses a storage device (100a) that stores the read encoded common catalog data and title catalog data, prior to the optical pickup reading the encoded audio data from the storage medium (col. 22, lines 42-57).

Regarding claim 13, Moriyama et al discloses a controller (100) that controls playback of the common catalog data and the title of the title catalog data (col. 22, lines 42-57) corresponding to a selection of a user and the read encoded catalog playback information (S6-7, fig. 20).

Regarding claim 14, Moriyama et al discloses a playback apparatus for playing back catalog information (fig. 9) relating to DVD-audio, wherein the catalog information and the DVD-audio are stored on a DVD (fig. 1), and the catalog information comprises common catalog data (album title or artist name) for information commonly applied for the entire audio data recorded on the storage medium, and title catalog data (song name) having information corresponding to distinct items of the audio data (fig. 12); an optical pickup which reads the DVD-audio and the corresponding common catalog data and title catalog data (80, fig. 19); and a processor which reproduces the common catalog data and title catalog data using an editing system for DVD-video and the DVD-audio (100, fig. 19).

Regarding claim 15, Moriyama et al discloses that the DVD stores DVD-video and the processor reproduces the DVD-video according to the editing system for the DVD-video (fig. 21).

Regarding claim 16, Moriyama et al discloses an encoding unit (fig. 18) to encode audio data (fig. 1), catalog information related to the audio data (fig. 9), wherein the catalog information comprises common catalog data (album title or artist name) for information commonly applied for the entire audio data recorded on the storage medium, and title catalog data (song name) having information corresponding to distinct items of the audio data (fig. 12); and an optical pickup to record the encoded audio data, and the encoded common catalog data and the encoded title catalog data (78, fig. 18).

Regarding claim 17, Moriyama et al discloses that the encoding unit encodes catalog playback information (fig. 9), the optical pickup records the encoded audio data, common catalog data and title catalog data in accordance with the catalog playback information (78, fig. 18), the recording apparatus further comprising a controller that defines file names of the common catalog data and title catalog data for storage on the storage medium (fig. 9), defines a region of the storage medium predetermined by a physical or logical address designated as a space for storing the catalog playback information and a location of the file in a volume information region of the storage medium (2, fig. 1 and fig. 9).

The limitations of claim 19 where discussed in the art rejection of claim 15.  
Please refer to the art rejection of claim 15.

Regarding claim 20, Moriyama et al discloses recording the common catalog data and title catalog data in an image information region (fig. 9) of a volume space (2) of the storage medium, and records the audio data (43) in an audio region (VTS region) of the storage medium.

Regarding claim 27, Moriyama et al discloses a decoding unit that decodes the encoded audio data and the encoded common catalog data and title catalog data read from the storage medium (fig. 19), wherein the optical pickup reads the encoded audio data, the common catalog playback data and title catalog data (80).

Regarding claim 28, Moriyama et al discloses a storage device to store the common catalog data and title catalog data of the audio data which is to be played back (fig. 1); a controller to control the decoding unit and the storage device (100), so as to simultaneously decode the audio data to be played back and the common catalog data and title catalog data corresponding to the audio data to be played back in accordance with the catalog playback information (col. 22, line 42 – col. 23, lines 63); and a controller (100) which controls the decoding unit and the storage device (fig. 19), wherein the controller determines whether the catalog playback information exist in the storage medium by defining a region of the storage medium predetermined by a physical or logical address designated as a space for storing the catalog playback information (2, fig. 1).

***Claim Rejections - 35 USC § 103***

8. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

9. Claims 4-10 and 18 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moriyama et al in view of Tashiro et al (5,654,516).

Regarding claims 4 and 8, Moriyama et al discloses audio data, common catalog data, and title catalog data (as discussed in the art rejection of claim 11); that the audio data is stored in a predetermined area (fig. 1); a decoding unit to decode the audio data (93) and the common catalog data and the title catalog data (col. 22, lines 42-57); a storage device to store the common catalog data and title catalog data of the audio data which is to be played back (100a); and a controller to control the decoding unit and the storage device (100), a storage device that stores the catalog information of the audio data which is to be played back (100a); and a controller (100) which controls the decoding unit and the storage device (fig. 19), wherein the controller determines whether the catalog playback information exist in the storage medium by defining a region of the storage medium predetermined by a physical or logical address designated as a space for storing the catalog playback information (2, fig. 1). However, Moriyama et al does not disclose that a video decoder which decodes the common catalog data, title catalog data, and additional information, to generating a restored

image, wherein the restored image is a still picture for background display, and the additional information is a sub-picture for transferring characters.

Tashiro et al teaches generating a restored image (fig. 15), wherein the restored image is a still picture for background display, and the additional information is a sub-picture for transferring characters (fig. 15).

It would have been highly desirable to generate a restored image so that the device could display the catalog information, a background picture, and additional information while reproducing the audio data, similar to a karaoke device.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to simultaneously decode catalog information and audio data; and generate a restored image in the device of Moriyama et al.

Regarding claims 5-6, Moriyama et al does not disclose that the catalog information is read in a predetermined sequence; and the catalog data is stored in the storing means is defined within a predetermined size.

Moriyama et al suggest that data is temporarily stored in the storage medium as needed (col. 22, lines 42-57). Therefore it can be assumed that data is stored only when needed. The common catalog data must always be stored because it is a table of contents (TOC) of the audio data; further, one title catalog from the plurality of title catalogs should only be stored, as only one title catalog is needed during the reproduction of that specific catalog. Clearly the data must be smaller than the capacity of the storing means, otherwise the data cannot be recorded. Additionally, any other



catalog titles will be read as needed. Therefore, if a predetermined order (i.e. set by the user or a default order) of playback is set the reading sequence will be predetermined.

The catalog data is stored in a temporary memory used by the controller. Since the memory size is limited and many different types of data are stored in the RAM. Therefore, the catalog data stored in the storing means must be within a predetermined size, such as less than the size of the memory.

It would have been highly desirable to have a predetermined reading sequence so that catalog data would be read according to the predetermined sequence. It would have been highly desirable to have a predetermined size so that catalog data is not lost since the size of the memory may be smaller than the size of all the catalog data.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to have a predetermined sequence and a predetermined size in the device of Moriyama et al.

Regarding claim 7, Moriyama et al does not specifically disclose storing common catalog data and data of one title catalog wherein the sum of the data size is smaller than the capacity of the storing means.

However, Moriyama et al suggest that data is temporarily stored in the storage medium as needed (col. 22, lines 42-57). Therefore it can be assumed that data is stored only when needed. The common catalog data must always be stored because it is a table of contents (TOC) of the audio data; further, one title catalog from the plurality of title catalogs should only be stored, as only one title catalog is needed during the

reproduction of that specific catalog. Clearly the data must be smaller than the capacity of the storing means, otherwise the data cannot be recorded.

It would have been desirable to store the common catalog data and one title catalog so that only the needed data during reproduction is stored in the temporary storage RAM, thereby minimizing the amount of RAM needed.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to store the common catalog and one title catalog in the device of Moriyama et al.

The limitations of claim 9 where discussed in the art rejection of claim 15. Please refer to the art rejection of claim 15.

Regarding claim 10, Moriyama et al discloses a file identifier (fig. 9) and an information table determining a location of common catalog data and title catalog data; and as discussed previously, Tashiro et al discloses reproducing the catalog data with audio data. Playback of the catalog information with the audio data would require information indicating when the catalog information is to be played back. Presentation time stamps (PTS) are commonly known in MPEG for indicating playback time. Therefore, it would have been obvious to have realtime information for playback. However, Moriyama et al does not disclose that if a user does not enter a catalog selection command for a given time during a playback mode of the audio data, the controller reads the audio information table to extract the corresponding common catalog data and title catalog data of the audio data being played back.

Tashiro et al teaches playing back catalog information with audio data (fig. 15). It would have been obvious to display the common catalog data and title catalog data if the user does not enter a selection command for a given time during playback. For example, if the user is rapidly skipping through the songs it is not desirable to display the catalog information because the processing time for displaying the catalog information slows down the skipping operation. However, if no input is received for a period of time the skipping operation has ended; therefore, the displaying of the catalog information would not interfere.

It would have been highly desirable to display the catalog information if the user does not enter a catalog selection command for a given time so that the displaying of the catalog information does not interfere with the other functions of the device.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to perform the reading of the catalog information as described above in the device of Moriyama et al.

Regarding claim 18, Moriyama et al disclose a playback apparatus for playing back catalog information relating to DVD-audio both stored on a recording medium; an optical pickup; and an encoding unit (as discussed in the art rejection of claim 14 and 16). However, Moriyama et al does not disclose that the catalog information includes still pictures for background images and sub-pictures for captions having character information, wherein the processor does not process the character information as still pictures.

Tashiro et al teaches catalog information including still pictures and sub-pictures in figure 15. It is well known in the art that sub-pictures (e.g. subtitles) are not processed as still pictures. Further, Moriyama et al discloses a sub-picture decoder separate from the video decoder.

It would have been highly desirable to have still pictures and sub-pictures so that a background image and other character information can be shown when the audio data is reproduced.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to have still pictures and sub-pictures in the device of Moriyama et al.

10. Claims 21-26 are rejected under 35 U.S.C. 103(a) as being unpatentable over Moriyama et al in view of Tashiro et al and Heo (6,222,983).

Regarding claims 21-22 and 25-26, Moriyama et al discloses that the optical pickup records the common catalog data and title catalog data in an image information region. However, Moriyama et al does not disclose recording distinct title catalog data into respective program chains of an image title set; and the optical pickup records the catalog playback information in an audio management region of the audio region and distinct items of the audio data in respective audio title sets of the audio region.

Tashiro et al teaches displaying catalog information while playing audio in figure 15. In Tashiro et al the catalog information is used as video data (Moriyama et al uses the catalog information for searching).

Heo teaches video data stored as video title set consisting of program chains (fig. 3). Therefore, displaying the catalog data, taught by Tashiro et al, would have the catalog data recorded in video title sets. Heo teaches an audio management region recording a menu for the audio data (fig. 11) or storing the catalog playback information (album title, artist, and song titles would be presented in a menu of the audio data) in an audio management region; and distinct items of the audio data in respective audio title sets of the audio region (fig. 11).

It would have been highly desirable to have catalog data stored in video title sets; catalog data stored in an audio management region; and audio data stored in audio title sets so that the audio data can be selected from a menu for reproduction and the audio data would be reproduce with catalog data at the same time (Tashiro et al fig. 15).

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to store catalog data in the video title sets; catalog data in the audio management region; and audio data in audio title sets in the device of Moriyama et al.

Regarding claims 23-24, please refer to the previous art rejection for the discussion of the storage of catalog information in locations of image information. Moriyama et al discloses catalog playback information comprising locations of the common catalog data and title catalog data (text pointer, fig. 9); and since the catalog information is stored in video title sets, as discussed previously, the locations are of image information. Moriyama et al discloses a file identifier (fig. 9), and an information table in which is stored the locations of one item of the common catalog data and the

title catalog data (fig. 9). However, Moriyama et al does not disclose an auto presentation information table.

Tashiro et al teaches playing back catalog information related to audio data with the audio data (fig. 15). Therefore, it would have been obvious to have file identifiers indicating the corresponding audio data for the common catalog data and title catalog data; and an information table indicated the catalog data to be played back with the corresponding audio data in order to perform the displaying of catalog information related to the audio data. For example, figure 12 (Moriyama et al) shows catalog information indicating a collection title (SEIKO MATSUDA COLLECTION), artist (SEIKO MATSUDA), and song titles (SUPREME, GRASS WITH FIREFLY, and STRAWBERRY TIME). Items of catalog data do not apply to every audio title set (or song), like song titles. Clearly the song titles "STRAWBERRY TIME" should not be displayed if that is not the song being played back, thereby making it obvious to have file identifiers indicating the correspondence between the audio data and catalog data, and a table for the catalog information corresponding to audio data that is to be played back with the audio data.

It would have been highly desirable to have an auto presentation information table so that catalog information corresponding to distinct items of audio data are displayed when the audio data is reproduced or song titles are displayed when the song is being reproduced.

Therefore, it would have been obvious to a person of ordinary skill in the art at the time of the invention to have an audio presentation information table in the device of Moriyama et al.

### ***Conclusion***

11. The prior art made of record and not relied upon is considered pertinent to applicant's disclosure. Tada, Lee et al, Narusawa et al, Murakami et al, and Suzuki et al disclose karaoke devices. Mori et al, Mimura et al, Tanaka et al, Taira et al, and Heo disclose DVD devices.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Polin Chieu whose telephone number is (703) 308-6070. The examiner can normally be reached on M-Th 8:00 AM-6:30 PM.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew B. Christensen can be reached on (703) 308-9644. The fax phone numbers for the organization where this application or proceeding is assigned are (703) 872-9314 for regular communications and (703) 872-9314 for After Final communications.

Any response to this action should be mailed to:

Commissioner of Patents and Trademarks

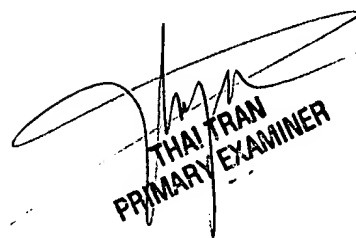
Washington, D.C. 20231

Hand-delivered responses should be brought to Crystal Park II, 2121 Crystal Drive, Arlington, VA, Sixth Floor (Receptionist).

Art Unit: 2615

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Technology Center 2600 Customer Service Office whose telephone number is (703) 306-0377.

PC  
May 15, 2003



THAI TRAN  
PRIMARY EXAMINER